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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,590	10/04/2000	Jeb R. Linton	45118-00026	7330
7590	12/18/2003			EXAMINER
				BROWN, RUEBEN M
			ART UNIT	PAPER NUMBER
			2611	9
DATE MAILED: 12/18/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/679,590	LINTON, JEB R.
	<b>Examiner</b>	<b>Art Unit</b>
	Reuben M. Brown	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_ is/are rejected.
- 7) Claim(s) 12-16 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
    1. Certified copies of the priority documents have been received.  
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2 &amp; 4-8</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 12-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form. Claim 12 depends from claim 13, which is improper. Furthermore, claim 13 depends from claim 13, which is also improper. Finally, claims 14-16 depend from claim 13 as well. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toyama, (U.S. Pat # 5,678,171).

Considering claim 1, the claimed system for receiving broadcast satellite transmission in at least an air-based vehicle comprising an orientation system for determining at least a first orientation of the vehicle in three dimensions is met by the disclosure of Toyama that discloses that the latitude, longitude, attitude and altitude of an airplane may be determined; see col. 1, lines 45-50; col. 3, lines 19-25.

The claimed controller in communication with the orientation system that receives first orientation data and first location data to determine a first position data corresponding to the vehicle reads on operation of the control unit 7, col. 3, lines 33-40. However, Toyama only discloses the control unit receiving the orientation data from the airplane's internal navigation system, without discussing any other location data. Examiner takes Official Notice that GPS technology was well known in the art at the time the invention was made, and was known to be used to indicate the location of airplanes, for instance. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Toyama to also receive and utilize a GPS signal, for the known improvement of a more precise location value.

The additionally claimed electronically-pointable antenna adapted to receive the first position control data from the controller and is adjusted accordingly is met by the discussion in Toyama, col. 3, lines 1-5 & col. 4, lines 1-14. As for the claimed direct broadcast satellite receiver to process and RF signals to output audio/video signals, Toyama discloses that the system is directed toward receiving image data, col. 1, lines 13-14 & col. 4, lines 52-54 and that receiver includes a tuner 13; see Fig. 1.

Considering claims 2, 5, the claimed feature of one-dimensional antenna mounted on a turntable to provide two-dimensional pointing is met by col. 4, lines 1-16.

Considering claim 3, the claimed subject matter reads on the operation of Toyama, col. 4, lines 24-51.

Considering claim 4, Toyama discloses the use of phased antennas, col. 2, lines 64-65 and that the antennas may be configured in arrays, col. 5, lines 15-45.

Considering claim 6, the claimed electronic compass & tilt-sensor are necessarily included in the internal navigation system.

Considering claim 7, Official Notice is taken that at the time the invention was made, electromagnetic and fluid sensors were well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Toyama with the well-known features of electromagnetic and fluid sensors, at least for the desirable benefit of more accurate measurements.

Considering claim 8, as pointed out in the rejection of claim 1, GPS technology was well known in the art at the time the invention was made, and it would have been obvious for one of ordinary skill in the art to modify Toyama with such a technique.

Considering claim 9, Toyama does not discuss the well-known problem of the loss of a satellite signal. Official Notice is taken that at the time the invention was made, it was known to detect the loss of a satellite signal, for instance by when the signal strength dips below a certain threshold. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to operate Toyama in manner wherein the loss of the satellite signal is detected, at least in order to as quickly as possible begin to take steps to re-obtain the instant satellite signal.

Considering claim 9, see col. 4, lines 24-51.

Considering claim 10, the claimed subject matter reads on the operation of Toyama, col. 4, lines 24-51.

Considering claim 11, the claimed elements of a DBS system corresponds with subject matter mentioned above in the rejection of claim 1, and is likewise treated.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Murphy Teaches a position related multimedia system for a vehicle that uses GPS technology and global navigating system, col. 2, lines 55-67.

Art Unit: 2611

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 746-6861 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown

  
ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600